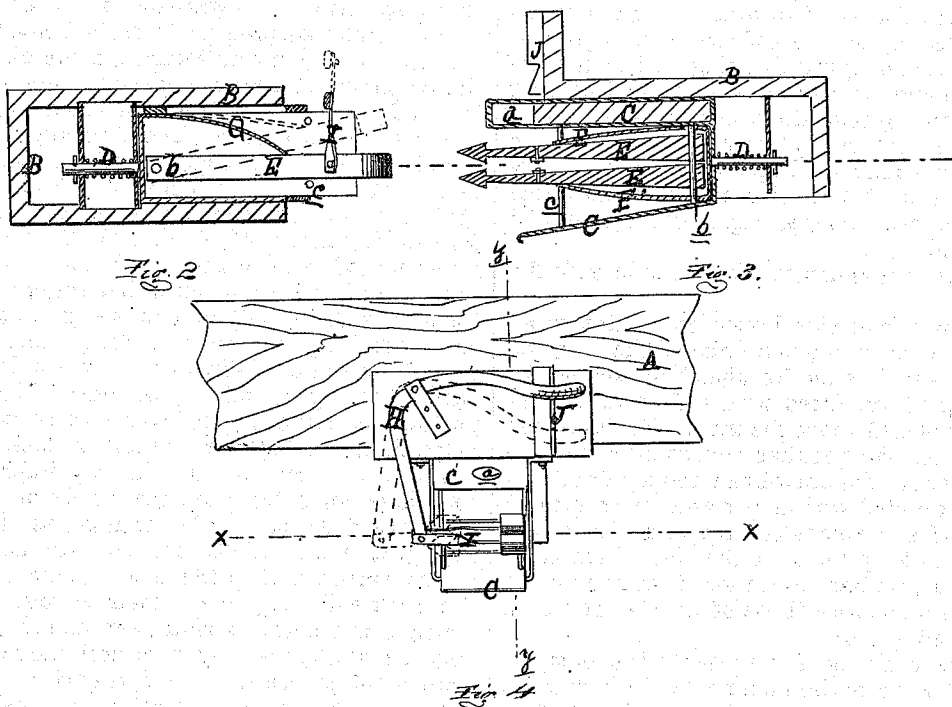
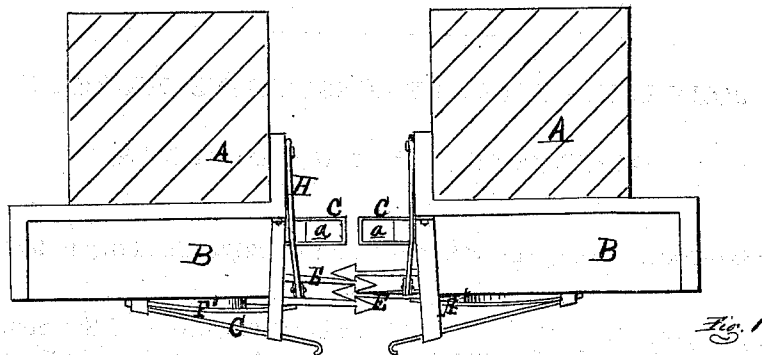


JOHN L. MARENESS.
Improvement in Car-Couplings.
No. 126,724. Patented May 14, 1872.



ATTEST:
N. S. Sprague
Chas. H. Everts

INVENTOR:
John L. Mareness
Per Atty—
N. S. Sprague

UNITED STATES PATENT OFFICE.

JOHN L. MARENESS, OF CONSTANTINE, MICHIGAN.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. 126,724, dated May 14, 1872.

To whom it may concern:

Be it known that I, JOHN L. MARENESS, of Constantine, in the county of St. Joseph and State of Michigan, have invented a new and useful Improvement in Car-Couplings; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon and being a part of this specification, in which—

Figure 1 is a side elevation of a pair of my couplings engaged. Fig. 2 is a horizontal section on *x x*, Fig. 4. Fig. 3 is a longitudinal vertical section on *y y*, Fig. 4, which is an end elevation.

Like letters indicate like parts in each figure.

The nature of this invention relates to an improvement in car-couplings of the harpoon variety, and has for its object to compel the coupling of cars fitted with such couplings at varying planes above the track. The invention consists in the peculiar construction and arrangement of the draw-head and a pair of harpoons provided with upper and lower springs to keep their heads in contact, and with lateral springs to keep them in the line of traction; also, in a peculiar device for disengaging the said harpoons with those of another car by a lateral movement.

In the drawing, A represents the bumper-beam of a car, to the under side of which there is secured the draw-bar frame B, in which is suspended a draw-bar, C, provided with the usual buffer-spring D. The upper part of the draw-bar is made double, of two horizontal plates, provided with a throat, *a*, with suitable pin-holes to enable the use of the ordinary link-and-pin coupling, should occasion require it. E E are two metallic harpoons pivoted "flat-wise," by a vertical bolt, *b*, in the back part of the main chamber of the draw-head. F F' are two leaf-springs secured at their rear

ends to the bottom of the main chamber and pivoted upon the bolt *b* in such a manner that they may vibrate with the harpoons. The free end of the spring F exerts a downward pressure upon the upper harpoon, and the spring F' exerts an upward pressure on the lower harpoon, thereby keeping their barbed heads in contact. G is a spring secured in the base of the chamber, standing edgewise therein, its free end pressing against both harpoons at one side to force them against a vertical stop guide, *c*, and thus keep them central with the draft-line of the car. H is a bell-crank lever pivoted at its angle to the buffer-plate above the draw-bar by means of a pair of links, I. The lower end of the bell-crank is connected with the sides of the harpoons, which are opposite the spring G, so that by depressing the other end both harpoons may be drawn laterally away from the draft-line, as shown in dotted outlines in Fig. 4, and may be retained in this position by engaging the lever with a notched plate, J, projecting from the buffer-plate.

When two cars fitted with my improved couplings come together, the heads of their harpoons must necessarily engage, as shown in Fig. 1, and, it will be noticed, that any ordinary variation from the usual plane above the track will not prevent their engagement, which is automatic in character, and they can only be disengaged by a lateral movement against the pressure of the spring G.

What I claim as my invention, and desire to secure by Letters Patent, is—

The construction and arrangement of the draw-bar C, buffer-spring D, pivot *b*, harpoons E E, springs F F' G, lever H, links I, and notched plate J, as and for the purpose set forth.

JOHN L. MARENESS.

Witnesses:

SAML. R. ROCKWELL,
MARTIN A. MARENESS.